## 1

## Assignment-7

## B.Ramana

Download all python codes from

https://github.com/BatharajuRamana/Assignment7/ tree/main/Assignment7

and latex-tikz codes from

https://github.com/BatharajuRamana/Assignment7/ tree/main/Assignment7

1 QUESTION No-2.70

Find  $P^{-1}$ . if it exists, given  $P = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix}$ 

2 Solution

Given that

$$\mathbf{P} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix} \tag{2.0.1}$$

$$\xrightarrow{R_2 \leftarrow R_2 + 1/2R_1} \begin{pmatrix} 10 & -2 \\ 0 & 0 \end{pmatrix} \tag{2.0.2}$$

 $\det \mathbf{P} = 0$ 

Does not exists P<sup>-1</sup>